

**Inland Hospital
Kennebec County
Waterville, Maine
A-110-71-H-R**

**) Departmental
) Findings of Fact and Order
) Air Emission License**

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Inland Hospital of Waterville, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their health care facility.

B. Emission Equipment

Inland Hospital is authorized to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	5.3	35	#4 fuel oil, 1.5%	1
Boiler #2	5.3	35	#4 fuel oil, 1.5%	1
Boiler #3	3.3	22	#4 fuel oil, 1.5%	1

Electrical Generation Equipment

<u>Equipment</u>	<u>Power Output (kW)</u>	<u>Fuel Type, % Sulfur</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Pollution Controls Equipment</u>	<u>Stack #</u>
Emergency Generator #1	360 kW	Diesel fuel, 0.05%	25.6 gal/hr	None	1

C. Application Classification

The application for Inland Hospital does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only. This source is determined to be a minor new source and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boiler Units

Inland Hospital operates Boilers #1, #2 and #3 primarily for facility heat and hot water. Boilers #1, #2 and #3 have maximum design heat input capacities of 5.3, 5.3 and 3.3 MMBtu/hr respectively, firing #4 fuel oil with a maximum percent sulfur content not to exceed 1.5% sulfur by weight.

A summary of the BPT analysis for boilers #1 (5.3 MMBtu/hr), #2 (5.3 MMBtu/hr) and #3 (3.3 MMBtu/hr) is as follows:

1. BPT for #4 fuel oil is a sulfur content of 1.5% by weight.
2. The PM/PM₁₀ limits are derived from Chapter 103.
3. NO_x emission limits are based on data from similar #4 fired boilers of this size and age.
4. CO and VOC emission limits are based upon AP-42 data dated 9/98.

5. BPT for visible emissions for Boilers #1, #2 and #3 is as follows:

Visible emissions from stack #1 shall not exceed 30% opacity on a (6) six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

C. Emergency Diesel Generator #1

Inland Hospital maintains Emergency Diesel Generator #1 for facility use in case of power interruptions. The 360 kW Emergency Diesel Generator #1 shall fire diesel fuel oil with a sulfur content not to exceed 0.05% by weight. In addition Inland Hospital has a limit on Emergency Diesel Generator #1 operating time of 500 hours per year. The Emergency Diesel Generator will be operated only when normal testing procedures, as recommended by the manufacturer, are being performed or in case of an emergency as defined in Chapter 100 of the Department Regulations.

Definition of “Emergency”

Per MEDEP Chapter 100, the definition of emergency for Chapter 115 purposes is the following:

“... any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the license, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

By definition, a diesel used for load shedding purposes (also known as a “Dispatchable Load Generators”) is not considered an “Emergency Generator”.

A summary of the BPT analysis for Emergency Diesel Generator #1 is as follows:

1. The PM/PM₁₀ limits are derived from Chapter 103.
2. SO₂, NO_x, CO and VOC emission limits are based upon AP-42 data dated 10/96 for diesel engines of up to 600 HP.
3. BPT for visible emissions for the Emergency Diesel Generator is as follows::

Visible emissions from stack #1 shall not exceed 20% opacity on a (6) six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

D. Annual Emission Restrictions

Inland Hospital shall be restricted to the following annual emissions, based on a 12 month rolling total:

- Total annual #4 fuel oil usage for the facility shall not exceed 200,000 gallons of #4 fuel oil per year with a sulfur content not to exceed 1.5% sulfur by weight based on a twelve month rolling total.
- Total annual Emergency Diesel Generator #1 usage shall not exceed 500 hours per year based on a twelve month rolling total firing diesel fuel oil with a percent sulfur not to exceed 0.05% by weight.

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	3.1
PM ₁₀	3.1
SO ₂	23.7
NO _x	11.4
CO	1.3
VOC	0.4

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulation Chapter 115, the level of air quality analyses required for a minor source shall be determined on a case-by-case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source. Based on the above total facility emissions, Inland Hospital is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-110-71-H-R subject the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.

- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

(16) Boilers #1, #2 and #3

A. Total annual facility #4 fuel oil usage shall not exceed 200,000 gallons/yr #4 fuel oil with a maximum sulfur content of 1.5% by weight based on a twelve-month rolling total. Fuel use records shall be maintained on a monthly basis, in addition to the twelve-month rolling total.

B. Emissions shall not exceed the following:

<u>Equipment</u>		<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>
Boiler #1	lb/MMBtu	0.2	-	-	-	-	-
	lb/hr	1.1	1.1	8.4	2.7	0.2	0.04
Boiler #2	lb/MMBtu	0.2	-	-	-	-	-
	lb/hr	1.1	1.1	8.4	2.7	0.2	0.04
Boiler #3	lb/MMBtu	0.2	-	-	-	-	-
	lb/hr	0.7	0.7	5.4	1.7	0.1	0.02

C. Visible emissions.

Visible emissions from stack #1 shall not exceed 30% opacity on a (6) six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

(17) Emergency Diesel Generator #1

A. Emergency Diesel Generator #1 shall be limited to the use of diesel fuel oil with a maximum percent sulfur content not to exceed 0.05% by weight. Compliance for sulfur content shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and percent sulfur of the fuel.

B. The Emergency Diesel Generator shall be limited to 500 hours per year of operation, based on a 12 month rolling total. To demonstrate compliance to this condition, Inland Hospital shall utilize the hour meter on the diesel unit at all times of diesel operation.

C. The Emergency Diesel Generator will be operated only when normal testing procedures, as recommended by the manufacturer, are being performed or in case of an emergency as defined in Chapter 100 of the Department Regulations.

D. A log documenting the dates, times and reason of operation for the generator shall be kept.

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E. Emissions from the emergency diesel generator shall not exceed the following:

Pollutant	lb/MMBtu	lb/hr
PM	0.12	0.4
PM ₁₀	-	0.4
SO ₂	-	0.2
NO _x	-	15.5
CO	-	3.3
VOC	-	1.2

F. Opacity

Visible emissions from the Emergency Diesel Generator #1 stack shall not exceed 20% opacity on a (6) six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

- (18) Inland Hospital shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).
- (19) Inland Hospital shall pay the annual air emission license fee within 30 days of August 31 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under 38 MRSA 341-D, Subsection 3.
- (20) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: **May 3, 2002**

Date of application acceptance: **June 3, 2002**

Date filed with the Board of Environmental Protection: _____

This Order prepared by, Peter G. Carleton, Bureau of Air Quality